benefit most from assessment in hepatology outpatients with staging of fibrosis.

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Disclosure of Interest None Declared.

PTU-116 INTER-RELATIONSHIPS BETWEEN PARAMETERS OF IRON OVERLOAD AND THEIR ASSOCIATION WITH LIVER FIBROSIS SEVERITY IN HAEMOCHROMATOSIS

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Introduction In the current era of routine HFE genotyping for suspected haemochromatosis, venesection is performed in C282Y homozygous patients with milder iron overload than was previously the case. It is thus useful to re-evaluate inter relationships between parameters of iron overload and their association with severity of liver fibrosis. We aimed to evaluate these relationships in C282Y homozygous patients undergoing venesection for iron overload.

Methods Retrospective analysis of departmental haemochromatosis database. We included 114 C282Y homozygous patients (76 men, age [median (range) 54(24–78)) years, who had elevated serum ferritin and had undergone venesection therapy. Data analyses included Pearson regression, Mann-Whitney testing and Cox multiple regression analysis.

Results At presentation, serum ferritin was 1018 (111–8179 mg/L and serum% iron saturation was 79% (29 – 99%). 73 patients had available liver histology, which showed Pearl grade 4 (0–4) siderosis (the 1 patient with grade 0 siderosis had serum ferritin of 6035 and required removal of 34 units of blood). Ishak fibrosis score was 1(0–6). 15 patients had cirrhosis. Patients underwent venesection of 14 (3–100) units of blood at 1–2 week intervals until serum ferritin fell to the lower end of the normal range. The number of units of blood removed to achieve this correlated significantly with baseline serum ferritin (Pearson $r = 0.62$ $p < 0.001$), serum iron saturation ($r = 0.36$ $p < 0.001$), liver siderosis grade ($r = 0.39$ $p < 0.001$) and (in 16 cases where measured) liver iron concentration ($r = 0.91$ $p < 0.03$). These iron storage parameters showed no correlation with age of presentation but were all higher (except siderosis grade) in men than in women ($p < 0.01$–0.001). Ishak fibrosis score correlated positively with number of units venesected ($r = 0.64$; $p < 0.001$), liver iron content ($r = 0.75$ $p < 0.01$), baseline serum ferritin ($r = 0.68$ $p < 0.001$) and iron saturation ($r = 0.34$ $p < 0.01$) but was not significantly associated with age, gender, known alcohol excess ($n = 25$) or steatosis on liver biopsy ($n = 24$). Patients with cirrhosis had higher baseline serum ferritin (2523 (680–6908) vs 1018 (111–8179) mg/L $p < 0.001$) and had more units venesected (42 (18–100) vs (14 (3–69) $p < 0.001$) than those without. In Cox multiple regression analysis, liver fibrosis stage was independently associated with baseline serum ferritin and number of units venesected (both $p < 0.001$) but was not associated with age, gender, known alcohol excess or steatosis.

Conclusion In C282Y homozygous patients, severity of overload, assessed by baseline serum ferritin and number of units venesected, is the main determinant of liver fibrosis severity, which is not associated with age, gender, presence of liver steatosis or known alcohol excess.

Disclosure of Interest None Declared.

PTU-117 CUTANEOUS STIGMATA OF CHRONIC LIVER DISEASE; WHAT DO THEY MEAN?

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Introduction As clinicians we are taught to assess all patients for cutaneous signs of chronic liver disease (CLD). However, there is limited evidence available in the literature regarding their significance or prognostic value for diagnosing the presence or severity of CLD. The aim of this prospective study, therefore, was to assess the frequency and significance of cutaneous stigmata in patients with suspected CLD.

Methods Between 2006 and 2011 outpatients with suspected CLD attending for liver biopsy were assessed by an experienced gastroenterology registrar, who undertook the liver biopsy, and documented the presence of palmar erythema, Dupuytren's contracture, spider naevi, clubbing or gynaecomastia. Correlation between these cutaneous stigmata and the presence and degree of liver damage was assessed by the chi square test.

Results 124 consecutive outpatients underwent assessment and liver biopsy; 42 (34%) female and 82 (66%) male, median age 46 years (range 18–78). Bloods tests showed median bilirubin 11 µmol/l (range 3–500), median ALT 74 IU/l (range 11–562) and median INR 1 (range 0.8–1.7). The commonest clinicopathological diagnoses were chronic hepatitis C 31%, non-alcohol related fatty liver disease 19% and alcohol related liver disease 12%. 19 patients had cirrhosis, 56 fibrosis and 49 had no fibrosis. Overall only 36/124 (29%) patients had any stigmata of CLD. 13/19 cirrhotic patients had stigmata compared to 23/105 non cirrhotic patients ($c^2 = 18.5$, $p < 0.001$). 26/75 patients with any degree of fibrosis had stigmata compared to 10/49 patients with no fibrosis ($c^2 = 1.8$, p = NS). 7 patients had 2 different stigmata of CLD, of whom 5 had cirrhosis and 2 had fibrosis. Females (14/42) were no more likely to have stigmata than males (25/82) ($c^2 = 0.1$, p = NS). Patients with viral hepatitis were no more likely to have stigmata than those with fatty liver disease ($c^2 = 1$, p=NS).

Conclusion Cutaneous stigmata of CLD are absent in the majority of patients with suspected CLD and a significant minority of patients with cirrhosis. This may contribute to the under diagnosis of chronic liver disease at all stages of severity.

Disclosure of Interest None Declared.

PTU-118 BACLOFEN AS AN ADJUNCT PHARMACOTHERAPY FOR THE MAINTENANCE OF ABSTINENCE IN ALCOHOL DEPENDENT PATIENTS WITH LIVER DISEASE

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Introduction Alcohol induced liver disease is the predominant cause of alcohol-related mortality in the UK. Therefore abstinence-based treatments are essential. Upto 70% of patients receiving alcohol treatment relapse within 6 months,[1] NICE attribute much of this failure of treatment to underutilisation of pharmacotherapy and recommend this be made available.[2] However, current licensed pharmacotherapies are contraindicated for patients with ALD. Baclofen has shown efficacy in the promotion of abstinence in patients with severe alcohol dependence[3,4] including those with ALD,[5] without exhibiting any of the complications or side effects elicited by current pharmacotherapies. Therefore the primary aim of this study was to measure the effectiveness of Baclofen in maintaining abstinence in this difficult to treat group.
Methods An observational prospective clinical audit was performed. Patients with liver disease and concomitant alcohol use were commenced on Baclofen at 10 mg three times daily (TDS), and titrated according to tolerability and response up to 30 mg TDS. Primary outcome measures were severity of physical dependence, as determined by SADQ score, and weekly alcohol consumption. These were compared at baseline, and 6 months.
Setting Acute Hospital Trust
Participants 149 patients referred to Hepatology for investigation of abnormal liver function and heavy drinking
Results Of the 149 patients commenced on Baclofen 100 (67.1%) remained engaged in treatment for 6 months. There was a significant reduction in alcohol consumption ($P < 0.0001$ 95% CI for difference 18 to 20) with 81 of the 149 patients (54.3%) maintaining total abstinence, 20 (13.4%) continued to drink and 48 (32.2%) were lost to follow-up and assumed to have returned to drinking. There was a significant reduction in the presence of physical dependence ($c^2 = 77.4$ $P < 0.0001$) as categorised by SADQ, and a non-significant improvement of liver biochemistry.
Conclusion Baclofen has a positive impact on alcohol consumption in this very difficult to treat, high risk patient group. A RCT is needed to confirm the benefit of baclofen in this patient group.

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Disclosure of Interest None Declared.

PTU-119 PHENOTYPIC CHARACTERISTICS AND LOCALISATION OF NOVEL HUMAN LIVER INFILTRATING NKP46 SUBSETS

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Introduction $CD56^+$Natural killer cells are the principal effector cells of the innate immune system and have a well-established role in tumour surveillance and anti-viral immunity. Expression of NKp46 has been shown to correlate closely with the severity of liver inflammation, viral resistance to IFN treatment and the attenuation of liver fibrosis. $CD56^+$NKp46 cells expressing IL-17 and IL-22 have also been described as a family of innate lymphoid cells in humans. Although the role of intrahepatic NK cells has been well described, little is known about the function and phenotype of intrahepatic NKp46 subsets. Thus, We aim to investigate the phenotypic characteristics of $CD56^+$ NKp46 cells in the inflamed human liver, with a view to exploring their functional role.
Methods Liver infiltrating lymphocytes were freshly isolated from explanted human liver tissue from our transplant program and phenotyped with multicolor flow cytometry. Cellular localization was investigated by immunohistochemistry and confocal microscopy
Results Human liver infiltrating NK cells reside predominantly around biliary epithelial cells at the portal tract close to regulatory T cells. We observed two populations of liver-infiltrating $CD3^{neg}$ $CD19^{neg}$ $CD56^{pos}$ cells distinguished by different levels of NKp46, $NKp46^{mid}$ (15% ±4.8 SD) and $NKp46^{high}$ (11% ±1.2 SD) neither subset expressed NKp44. The chemokine receptor expression of $NKp46^{mid}$ and $NKp46^{high}$ populations was: CCR6 (12% ± 3 vs. 7%± 2.4), CCR9 (20% ± 5.6 vs. 9% ± 0.9), CX3CR1 (18% ± 14 vs. 10% ± 1) CXCR3 (47%±14.4 vs 38%±11.0) and CXCR6 19% ± 4.0 vs. 14% ± 4.6). Both populations expressed IL-18R (42% ± 5.4 vs 7% ± 1.0), IL-23R (19% ± 6.0 vs. 11% ± 2.5), surface receptor CD161 (61% ± 12.1 vs 85% ±4.8) and the integrin receptor CD103 (4% ± 1.35 vs. 16% ± 1.7). The $NKp46^{high}$ population was highly enriched with the activation marker CD69 (77%±18%). NKp46 cells were also shown to express TNF-α (29% ± 7.5), IFN-γ (70% ± 7.0), Granzyme B (23% ± 11.0) and Perforin (23% ±11.1) along with transcription factor Tbet (19% ± 9.1).
Conclusion We hereby report novel subsets of liver infiltrating $CD56^+$NKp46 cells, which localise around the portal tract biliary epithelium in the inflamed human liver. These populations have distinct cytokine, chemokine and CD103 expression, which may explain their recruitment, positioning and effector functions in the inflamed hepatic microenvironment.
Disclosure of Interest None Declared.

PTU-120 EFFECTIVENESS OF NURSE LED HEPATITIS C TREATMENT; A LARGE DISTRICT GENERAL HOSPITAL AUDIT

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Introduction Hepatitis C is the third most common risk factor for liver diseases in the UK. Updated estimates suggest that around 216,000 individuals are chronically infected with hepatitis C. Treatment with combination of pegylated Interferon and ribavarin is well established. Specialist viral hepatitis nurses working collabaratively with clinicians play a major role in delivering excellent clinical outcomes.
Methods Evaluate the safety and clinical effectiveness of chronic hepatitis C treatment that was led by the specialist viral hepatitis nurses under the supervision of gastroenterologists.

Data was obtained from a prospectively maintained hepatitis C database over a 5-year period from September 2008 to date. A retrospective analysis of the database was carried out looking at the treatment outcomes. Patients with liver transplant and/or co-infection with hepatitis B or human immunodeficiency virus (HIV) were excluded. The dedicated viral hepatitis specialist nurses closely followed up all patients.
Results A large database of 437 patients who underwent treatment was analysed. There were 128 (29.2%) females and 309 (70.7%) males ranging between 23–84yrs old (mean age of 42).